TEXAS INSTRUMENTS

Power Supply Circuits

Voltage References, Voltage Regulators, PWM Controllers, Supervisors, Switches, Optoisolators, and Special Functions

Data Book

1996

Mixed-Signal Products

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INTRODUCTION

The Texas Instruments **1996 Power Supply Circuits Data Book** has been created to showcase our growing line of analog components for power-supply designs. Featured in this data book are most of the components previously found in the **1992 Linear Circuits Data Book, Volume 3**, the many new and exciting power supply products introduced since then, and other components useful for power-supply designs.

This new data book is more than a collection of data sheets; it is a tool for locating the best power supply components for a successful design effort. It has been completely restructured to help you quickly find the devices best suited to your application.

A complete **alphanumeric index** at the beginning of the book makes finding specifications for known part numbers simple. You no longer have to search through chapter indexes when you don't know a device function.

The **new device index** includes a description to highlight TI's newest devices. These products include new families of PMOS high-side switches and personal computer memory card international association (PCMCIA) power distribution switches, extremely low dropout (LDO) voltage regulators, advanced pulse-width-molulation (PWM) controllers, and integrated power supply building blocks. Product-preview data sheets are included for devices not completely released when this book was printed. Contact your local TI sales office for complete data sheets and product availability.

Redesigned **product selection guides** give a condensed view of parametric information, organized to help you choose the devices that most closely fit your needs. Key specifications and/or features are presented for easy comparison.

An extensive **glossary** is provided for reference, defining and clarifying terms used by Texas Instruments and the semiconductor industry that might be new or unfamiliar.

The data sheets have been organized into several chapters by product function.

- Voltage references
- Voltage regulators
- PWM controllers and dc-to-dc converters
- Supply voltage supervisors
- PMOS and PCMCIA power distribution switches
- Optoisolators
- Building blocks and special functions

Each chapter has its own table of contents that includes descriptions of the devices, which makes finding a specific device much easier to find.

For convenience, a chapter for **optoisolators** is included in the **1996 Power Supply Circuits Data Book**. This eliminates the need to flip back and forth between two data books for your total power-supply solution.

In section 9 of this data book there is a collection of **application notes**. Texas Instruments is committed to providing designers with detailed application notes for our newest power-supply components. This section represents the beginning of this effort. These applications are fully tested and, in some cases, evaluation boards may be available (contact your local TI sales office). More applications notes will be available from the factory soon.

The last section of this data book contains complete **mechanical specifications** for all packages used with Texas Instruments power supply circuits. This includes the latest innovations in surface-mount power packages. Designers of space-critical systems may want to investigate new products offered in SOT-23 (DBV suffix), power TSSOP (PWP suffix), and the PowerFlex™ (KTD, KTG, and KTP suffixes) packages.

PowerFlex is a trademark of Texas Instruments Incorporated.

While this data book offers design and specification data only for power-supply products, complete technical data for any TI semiconductor product is available from your nearest TI Field Sales Office, local authorized TI distributor, or by writing directly to:

Texas Instruments Incorporated
LITERATURE RESPONSE CENTER
P.O. Box 809066
DALLAS, TEXAS 75380-9066

or telephone the TI Literature Response number: 1-800-477-8924.

We sincerely believe the new **1996 Power Supply Circuits Data Book** will be a valuable addition to your collection of technical literature.